

(12) **United States Patent**
Lombardi

(10) **Patent No.:** **US 9,114,967 B2**
(45) **Date of Patent:** **Aug. 25, 2015**

(54) **MASON'S ADJUSTABLE
CHIMNEY-PLATFORM ARRANGEMENT**

(71) Applicant: **Donald F. Lombardi**, Manchester, MA
(US)

(72) Inventor: **Donald F. Lombardi**, Manchester, MA
(US)

(*) Notice: Subject to any disclaimer, the term of this
patent is extended or adjusted under 35
U.S.C. 154(b) by 0 days.

(21) Appl. No.: **14/544,133**

(22) Filed: **Nov. 29, 2014**

(65) **Prior Publication Data**

US 2015/0075904 A1 Mar. 19, 2015

Related U.S. Application Data

(60) Continuation of application No. 12/658,868, filed on
Feb. 16, 2010, now Pat. No. 8,899,379, which is a
continuation-in-part of application No. 12/287,787,
filed on Oct. 14, 2008, now Pat. No. 7,661,372, which
is a division of application No. 11/499,374, filed on
Aug. 5, 2006, now Pat. No. 7,434,521.

(51) **Int. Cl.**
B66F 11/04 (2006.01)
E04G 1/22 (2006.01)

(52) **U.S. Cl.**
CPC **B66F 11/044** (2013.01); **B66F 11/046**
(2013.01); **E04G 1/22** (2013.01)

(58) **Field of Classification Search**
CPC B66F 11/044; B66F 11/046; A62B 1/02
See application file for complete search history.

(56) **References Cited**

U.S. PATENT DOCUMENTS

3,095,945	A *	7/1963	Mitchell	182/14
3,301,348	A *	1/1967	Hiyama	182/131
3,509,965	A *	5/1970	Mitchell	182/62.5
3,590,948	A *	7/1971	Milner, Jr.	182/2.1
5,205,603	A *	4/1993	Burdette, Jr.	296/62
5,337,854	A *	8/1994	Brandt	182/2.9
6,152,264	A *	11/2000	Gaines et al.	182/223
6,834,903	B2 *	12/2004	Harper et al.	296/51
6,913,305	B1 *	7/2005	Kern et al.	296/51
7,370,725	B1 *	5/2008	Dornfeld	182/2.2
7,549,692	B2 *	6/2009	Washington	296/61
7,661,372	B2 *	2/2010	Lombardi	108/54.1
8,151,935	B2 *	4/2012	Graham	182/69.5
2003/0198550	A1 *	10/2003	Granroth et al.	414/685
2005/0173192	A1 *	8/2005	Waisanen et al.	182/141
2008/0135334	A1 *	6/2008	Graham	182/141
2009/0108614	A1 *	4/2009	Washington	296/61
2009/0236180	A1 *	9/2009	Grandy	182/128
2009/0297314	A1 *	12/2009	Jaeger et al.	414/563
2012/0018253	A1 *	1/2012	Taberah	182/141

* cited by examiner

Primary Examiner — Katherine Mitchell

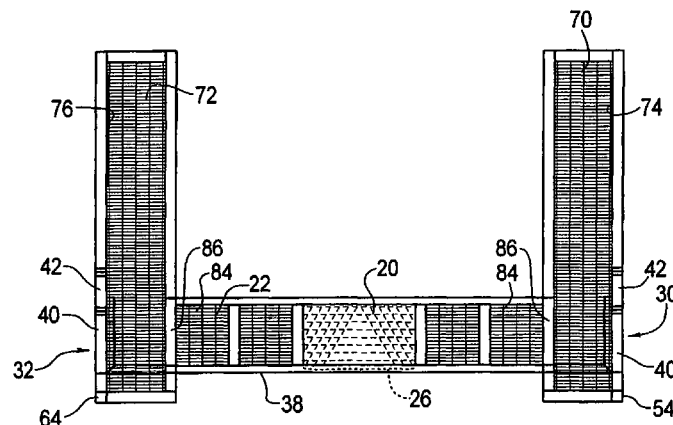
Assistant Examiner — Candace L Bradford

(74) *Attorney, Agent, or Firm* — Don Halgren

(57) **ABSTRACT**

An adjustable platform assembly for supporting workers and supplies about an elevated work site, the platform assembly being movably supported on an articulable support, the platform comprising a stationary rear bridging panel arrangement having an elongated side platform member comprising a floor and railing assembly at each end thereof, wherein each elongated side platform member floor and railing assembly is independently movable on support members forwardly, rearwardly, transversely and angularly with respect to the bridging panel arrangement, to change the platform assembly back and forth between a generally "H" shape to a generally "U" shape, or any skewed combination thereof, as required.

8 Claims, 17 Drawing Sheets



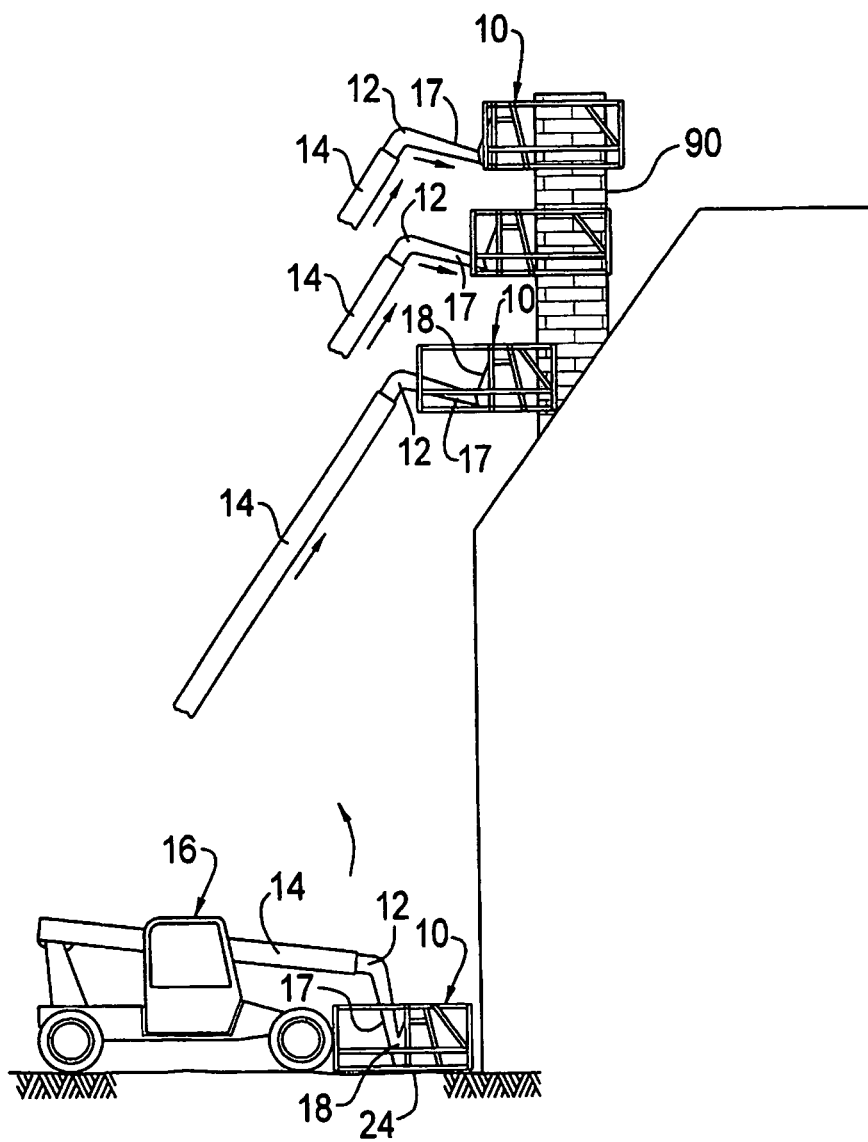


FIG. 1

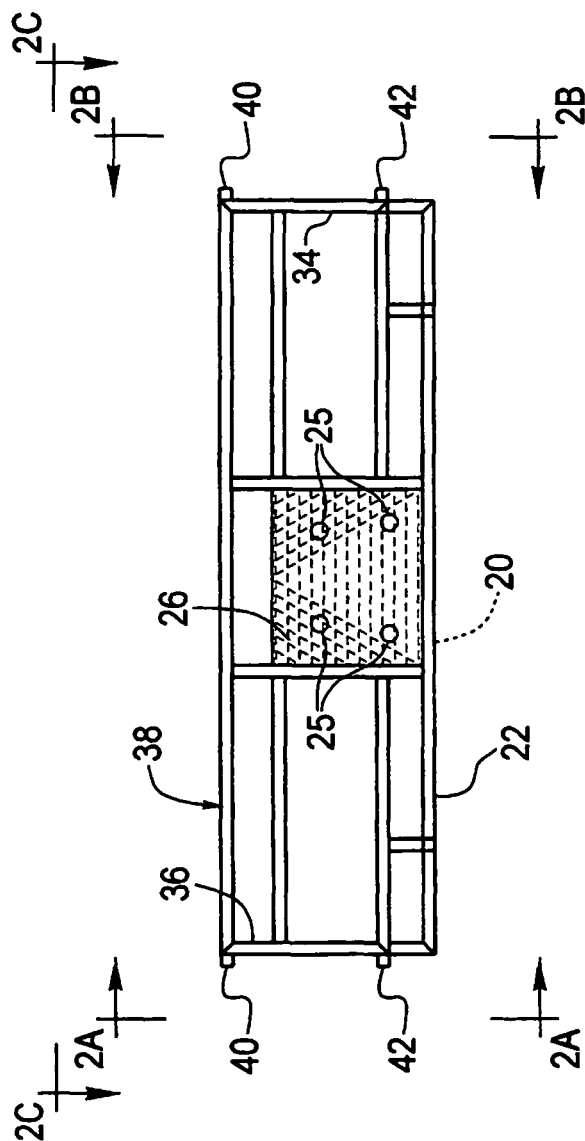


FIG. 2

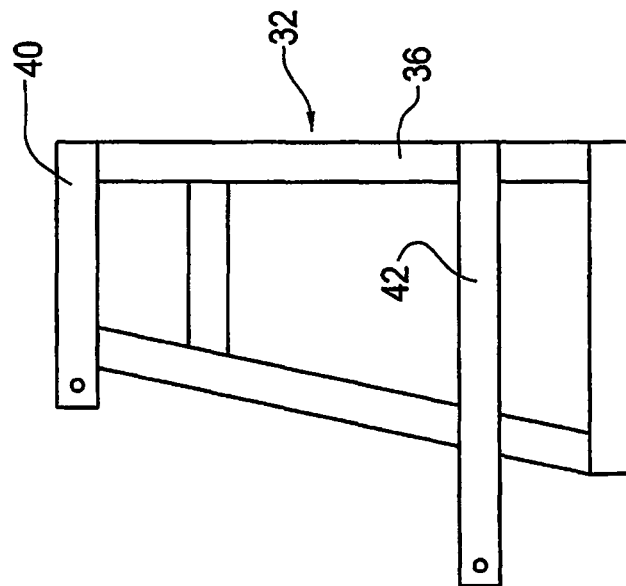


FIG. 2A

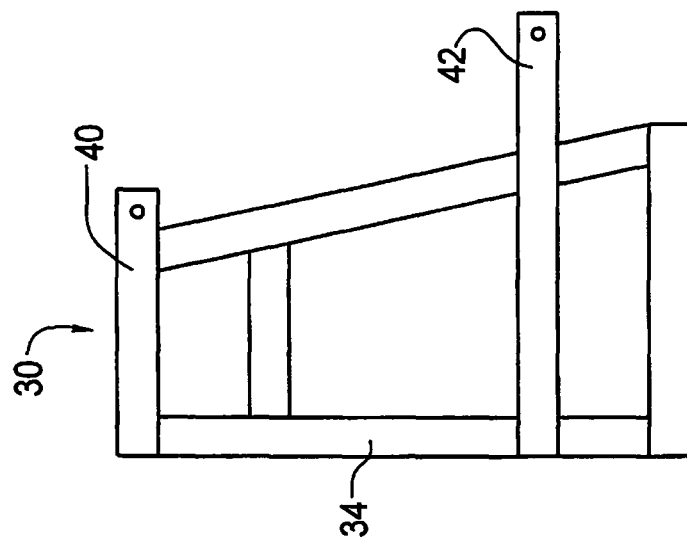


FIG. 2B

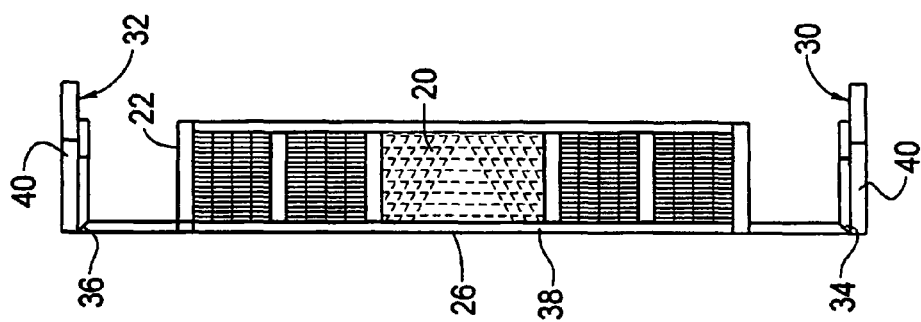


FIG. 2C

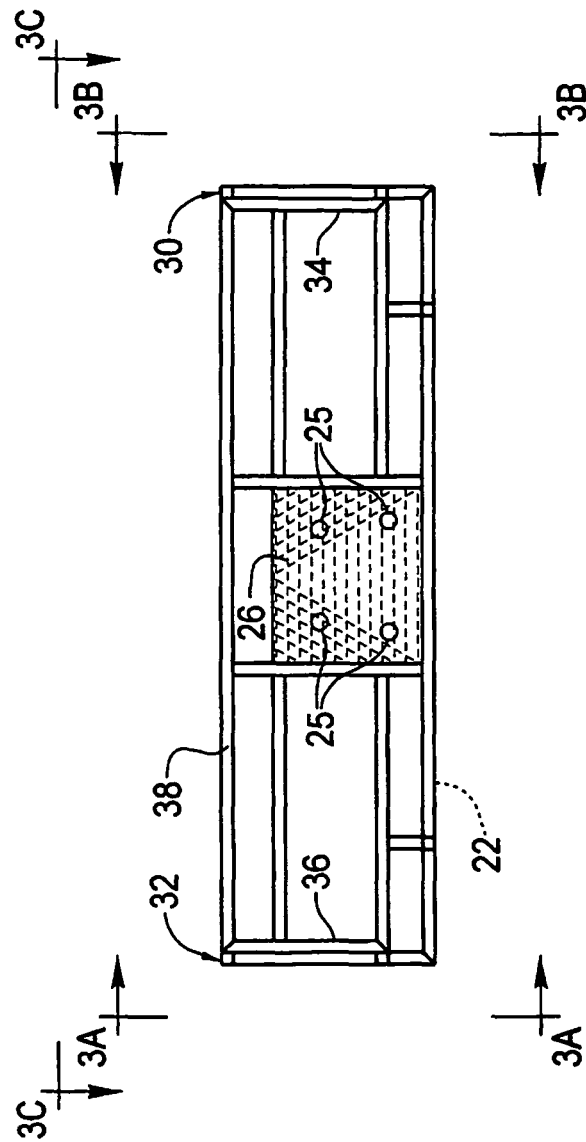


FIG. 3

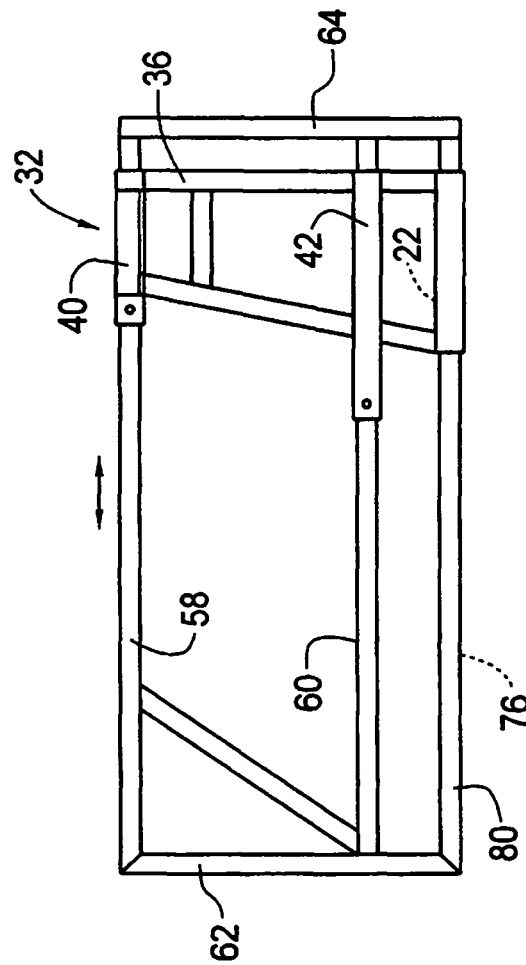


FIG. 3A

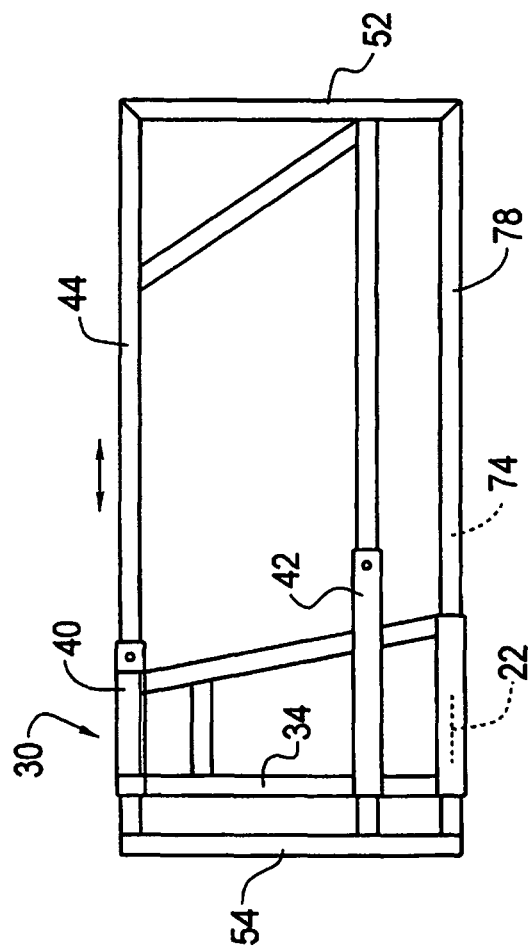


FIG. 3B

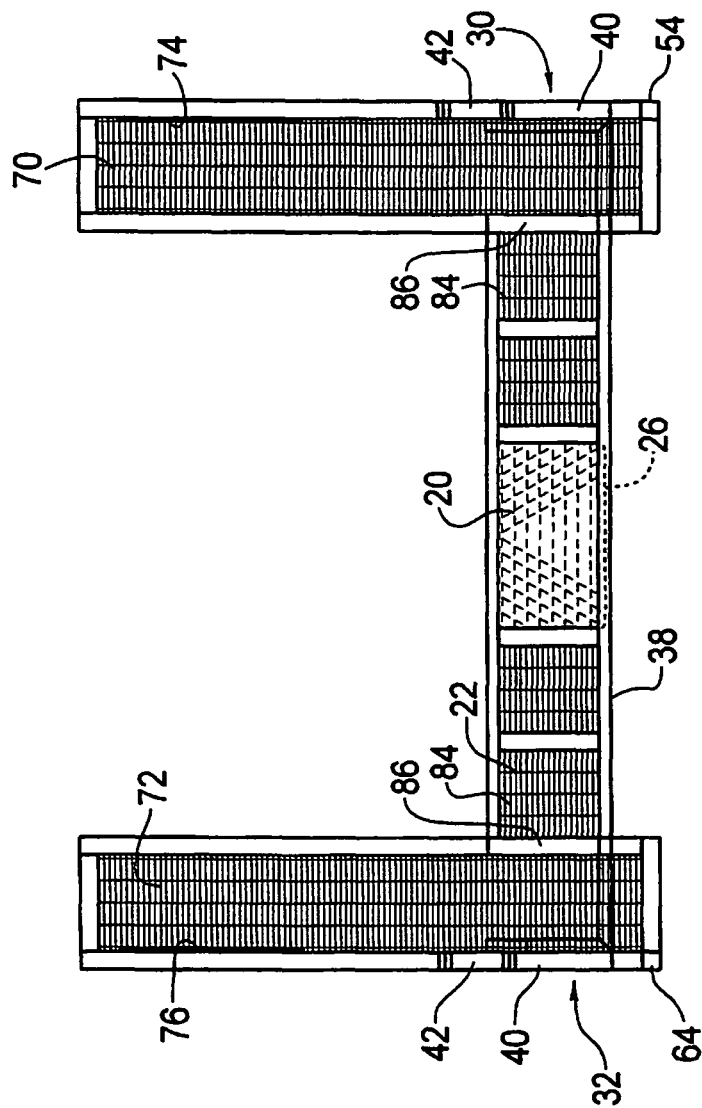
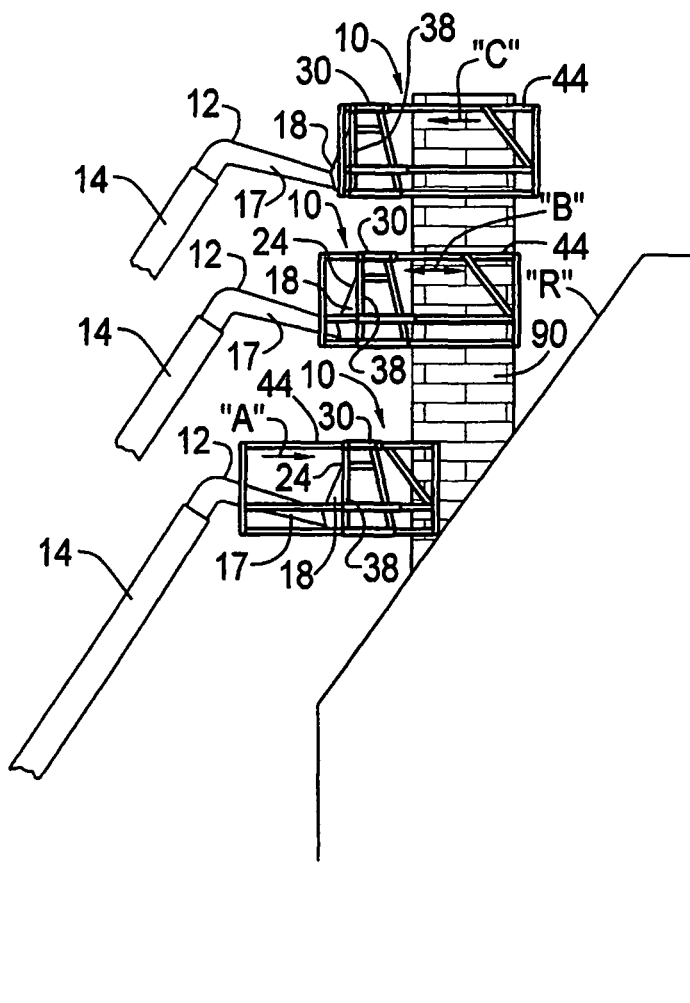


FIG. 3C

FIG. 4



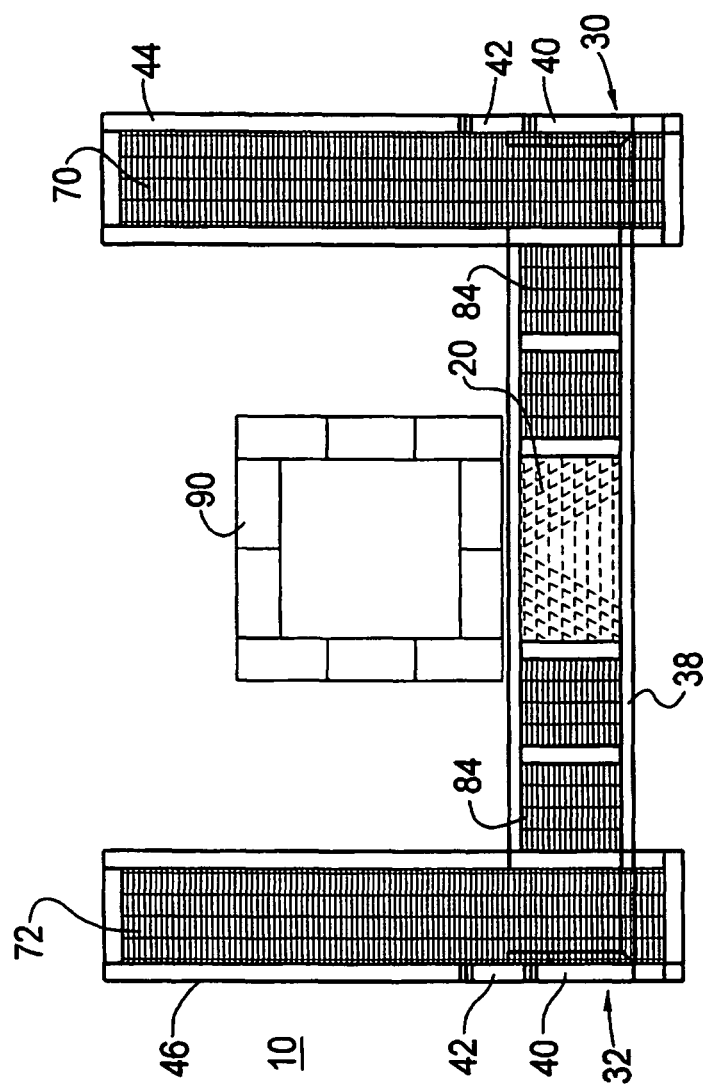


FIG. 5

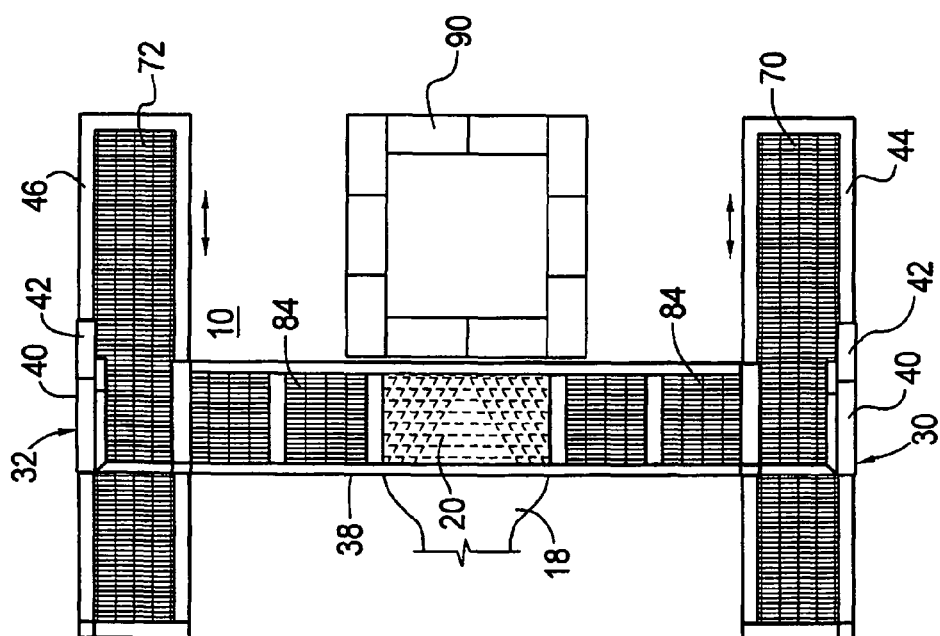
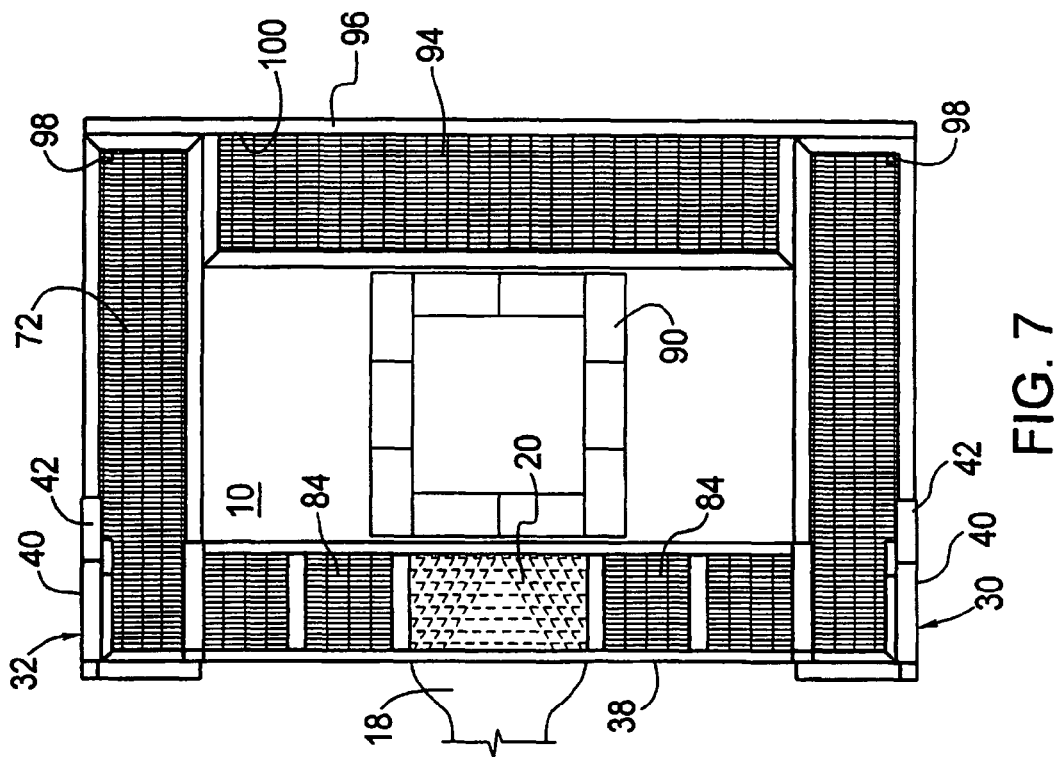


FIG. 6



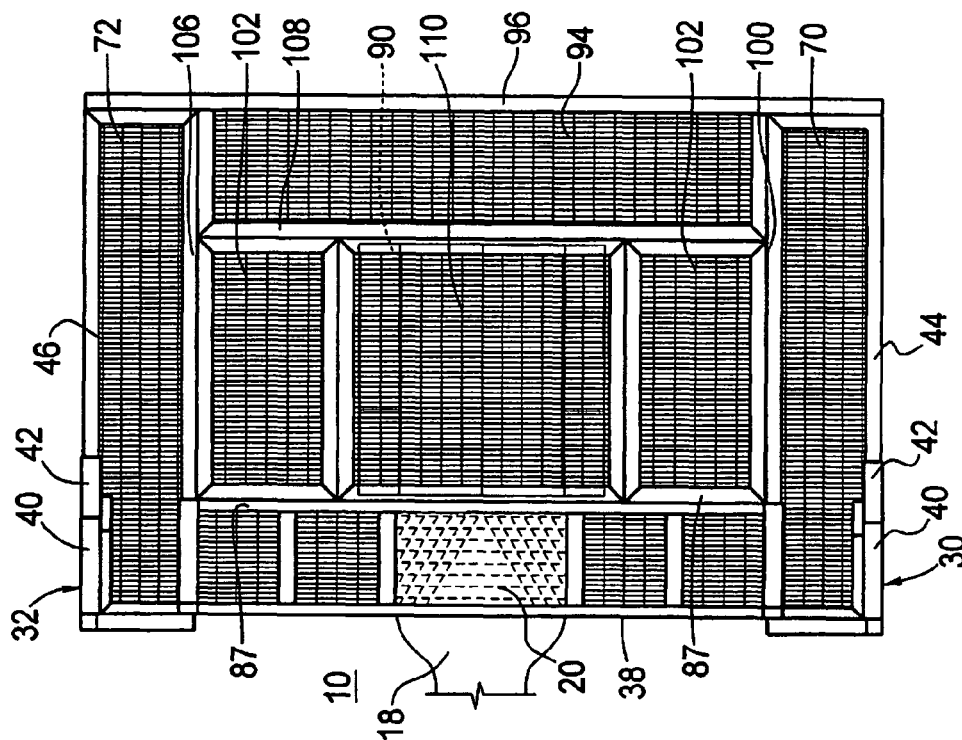


FIG. 8

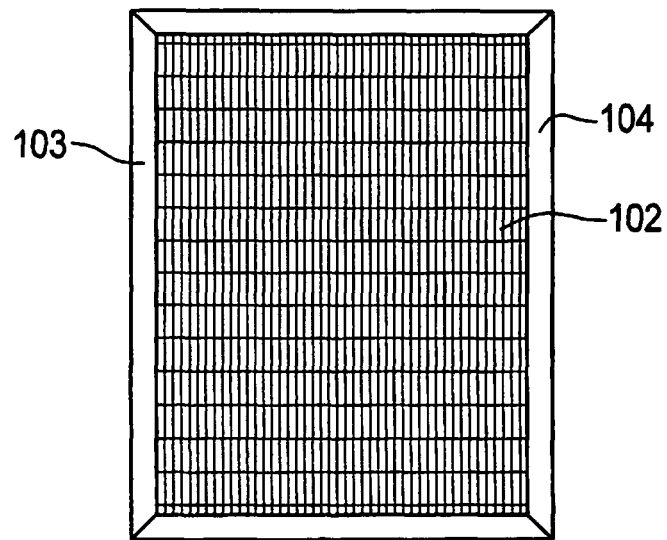


FIG. 9

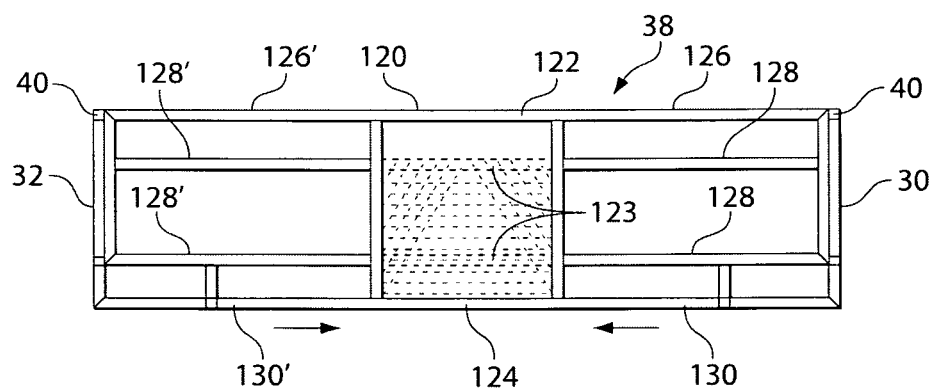
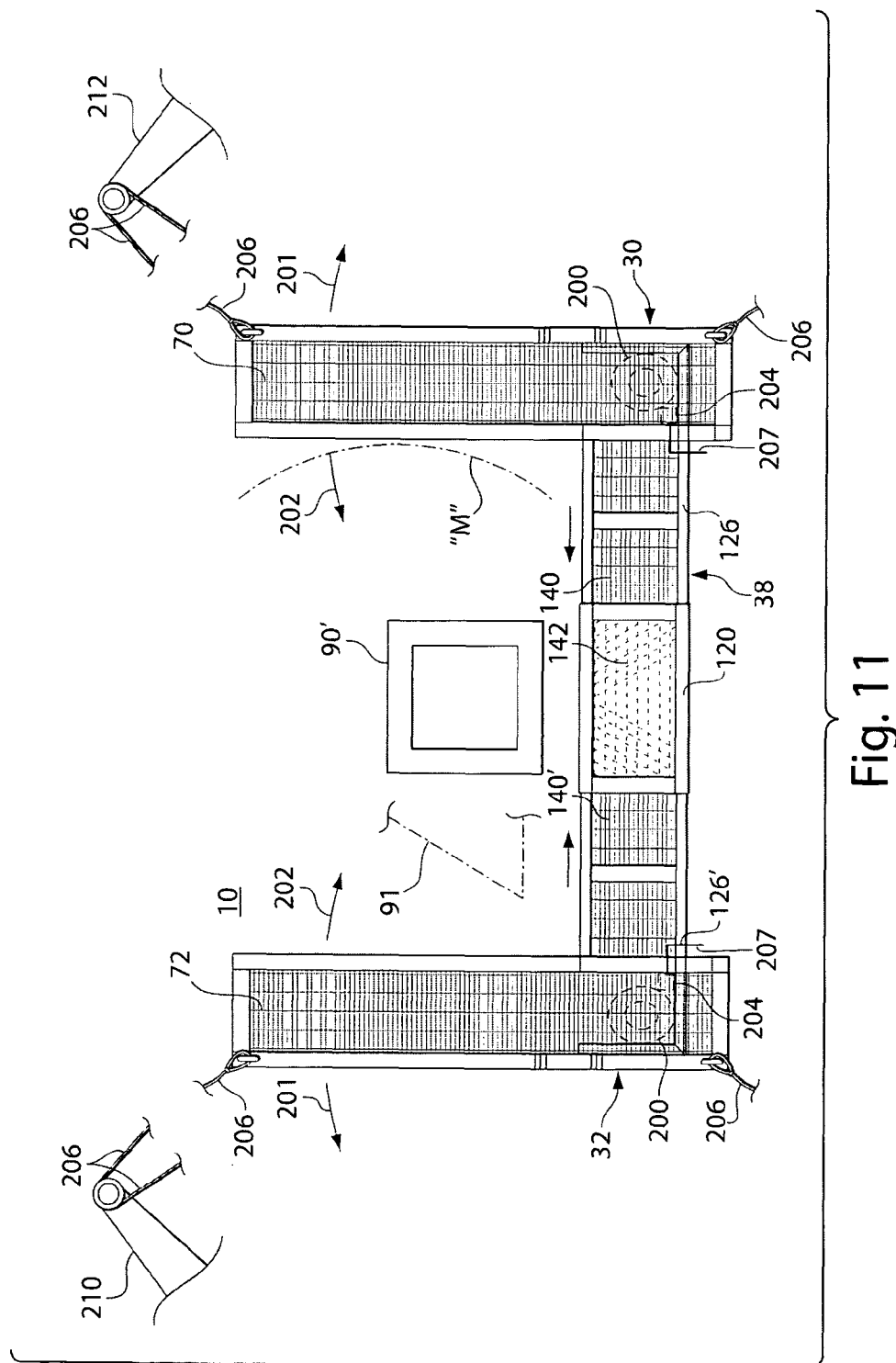


Fig. 10



MASON'S ADJUSTABLE CHIMNEY-PLATFORM ARRANGEMENT

This invention relates to lift platforms to facilitate chimney construction, and more particularly to articable lift platforms attachable to mechanical arm arrangements to be utilized for construction at above the ground locations. This application is a continuation of Ser. No. 12/658,868, now U.S. Pat. No. 8,899,379, which application is a Continuation-In-Part application of U.S. patent application Ser. No. 12/287,787, now U.S. Pat. No. 7,661,372, which is a divisional application of U.S. patent application Ser. No. 11/499,374 now U.S. Pat. No. 7,434,521, each of which is incorporated herein by reference in its entirety.

BACKGROUND OF THE INVENTION

1. Field of the Invention

2. Prior Art

The construction industry, particularly that which is involved in the home and building field have a difficult time reaching elevated structures, such as chimneys on roofs or the like, to rebuild them or to get around them. Often those structures are several stories high off of the ground. Movement and work space around them is too often very limited.

Those in the masonry business may readily attest to this. Getting bricks, mortar and personnel to an elevation several stories above the ground, and keeping them there in a safe and stable manner where they can productively work is something much to be desired.

It is a further object of the present invention to provide an articable platform which is adapted to be attached to the distal end of an articable arm, for safe hoisting and lowering of personnel and equipment to a roof of a building.

It is a further object of the present invention, to provide an articable platform which may be adapted to the particular construction irregularities of a particular work site.

It is still yet another object of the present invention, to provide a work space or platform which is maneuverable, safe and has the ability to be changed and controlled in its elevated most position.

It is a further object of the present invention to provide an adaptable platform arrangement which may have side platform portions which may be pivoted about a rotary foundation on their support bases to be permitted to surround, apply transverse pressure or provide spaced-apart or close accommodation to a vertical or non-rectilinear structure more readily.

BRIEF SUMMARY OF THE INVENTION

The present invention comprises an articable platform which is securable to the distal end of an articable arm. The articable arm is typically telescopically arranged on the distal end of a movable arm supported on a lift truck. The lift truck provides a mobile base from which the articable platform may be moved and adjusted.

The articable arm has a distalmost end with a securement member thereon. The platform has a lower anchor plate and a lower support frame to which the securement member is attached, by a bolt and slider mechanism. A rear wall plate is attached to the lower anchor plate and the lower support frame. A right sidewall frame and a left sidewall frame are attached to the respective side edges of the rear wall frame.

The respective sidewall frames each have an upper elongated channel and a lower elongated channel. The sidewall frames each slidably support a slidable side wall. An upper

right rail of a right slidable side wall slides through the upper elongated channel of the right sidewall frame. A lower rail of the right slidable side wall slides through the lower elongated channel of the right sidewall frame. The right slidable side wall has a transverse bar at its distalmost end and it has a transverse bar. The right slidable sidewall has a right-side proximal transverse bar at the rear end of the right slidable sidewall. The right-side proximal transverse bar butts into a right sidewall frame transverse bar when the right slidable sidewall is extended distally its maximum amount.

The left sidewall frame has a left slidable sidewall arranged in a similar manner to the aforementioned right sidewall frame. An upper left rail of a left slidable sidewall slides through the upper elongated channel of the left sidewall frame. A lower rail of the left slidable side wall slides through the lower elongated channel of the left sidewall frame. The left slidable sidewall has a transverse bar at its distalmost end and it has a transverse bar. The left slidable sidewall has a left-side proximal transverse bar at the rear end of the left slidable sidewall. The left-side proximal transverse bar butts into a left sidewall frame transverse bar when the left slidable sidewall is extended distally its maximum amount.

The right sidewall frame and the left sidewall frame may in one embodiment, each have a fold down floor panel member arrangement with a hinge arranged along a lower portion thereof. Each left and right slideable sidewall has a lower bar which moves along with their respective left and right slidable sidewalls, the lower bar of each being hingedly attached to an elongated side plate which may be pivoted into supported engagement with a portion of the rear floor on each side of the lower anchor plate.

In operation of the articable platform on the distal end of the articable arm on the lift truck, that articable platform may engageably receive between its elongated side floors, any chimney or vertical structure therebetween. Those slideable sidewalls may be moved forwardly and rearwardly, that is away from and back towards the rear wall frame. Such sidewall movement effects a change in the "plan" view of the platform, that is, from an "H" shape to a "U" shape with variable side positions or a variable "bridging" portion length. For instance, if the platform were utilized above a chimney on a slanted roof, the slidable sidewalls would only be independently extended from their respective right sidewall frame and left sidewall frame enough to clear the sides of the chimney without damaging any inclined roof there adjacent. To fully surround a chimney or structure, those independently slideable sidewalls would be extended away from the rear wall frame so as to provide the elongated side floors their full extendibility thereadjacent. The distal end of those side floors may also be rested upon the sloping side of the roof through which the chimney extends.

It is further contemplated that a front floor plate with a front wall may be adjustably and removably disposed between the distalmost end of the respective elongated side floors with a corner attachment coupler secured at each end of the front floor plate wall to the ends of the respective left and right slidable sidewalls. The front wall and front floor plate may be hingedly attached to one another by an elongated hinge along their lower portion thereof.

Insert panels may be disposed between the chimney and the elongated edges of the elongated side floors and the edges of the rear floor and the front floor for in close support of personnel and material on the platform.

The invention thus comprises a generally "U" to "H" (or vice versa) shaped distributively adjustable articable platform, attachable to the distal end of an articable support arm of a transport vehicle. Such support arm may include an

3

elongated crane or derrick which is supportive of and connected to the articulatable platform by a plurality of cables. The platform is arranged to adjustably surround an elevated chimney on at least three sides thereof. The platform may be comprised of: a rectilinear lower anchor plate centrally disposed within an elongated lower support frame, a rectilinear rear anchor plate connected perpendicularly to the lower anchor plate, the rectilinear rear anchor plates centrally and connectively disposed within an elongated rectilinear rear wall frame, all comprising a "bridging" portion, a right sidewall frame and a left sidewall frame connected to respective end portions of the elongated rear wall frame, connected to respective end portions of the lower support frame; and a right slidable sidewall slidably disposed within the right sidewall frame, and a left slidable sidewall slidably disposed within the left sidewall frame, to provide adjustable portions thereof around an elevated structure (chimney) for supporting personnel and equipment therefor. The left slidable sidewall and the right slidable sidewall may each have an elongated lower portion with a hinge thereon, each of the hinges being attached to an elongated side floor, each of the side floors being in pivotable engagement with and slidable support with respect to the lower support plate of the platform for support thereof. Each of the slidable sidewalls are preferably movable independently of one another. An elongated front floor may be nestably disposable between the elongated side floors when the side floors are disposed in a horizontal orientation. The front floor is preferably hingedly attached to a front wall to provide full peripheral enclosure by a succession of wall members on the platform in an elevated orientation, while surrounding a chimney. The platform may include a plurality of plate inserts, the plate inserts being supported upon edge portions of the hingedly attached side floors and the hingedly attached front floor. The right and left sidewall frames preferably have elongated channels, and the slidable sidewalls have elongated structure members which are arranged to telescopically slide through the channels for support of the side walls in the side wall frame.

The invention also comprise a method of supporting a work crew on an elevated chimney work site, comprising one or more of the following steps of: attaching a generally "U" to "H" or "H" to "U" shaped (in a plan view) articulatable platform assembly to the distal end of an articulatable support arm of a transport vehicle, wherein the platform is arranged to adjustably surround an elevated chimney on at least three sides thereof, wherein the platform is comprised of a rectilinear lower anchor plate centrally disposed within an elongated lower support frame, a rectilinear rear anchor plate connected perpendicularly to the lower anchor plate for attachment to an articulatable arm on a mobile transport, the rectilinear rear anchor plates centrally and connectively disposed within an elongated rectilinear rear wall frame, a right sidewall frame and a left sidewall frame connected to respective end portions of the elongated rear wall frame, and connected to respective end portions of the lower support frame, a right slidable sidewall telescopically slidably disposed within the right sidewall frame, and a left slidable sidewall telescopically slidably disposed within the left sidewall frame, to provide adjustable portions thereof around an elevated (chimney) structure for supporting personnel and equipment therefor; moving the right sidewall and the left sidewall independently with respect to one another to adjust the distribution of the sides of the platform relative to a chimney. The method may include the step of: placing a shoulder edge of a further rectilinear support frame adjacent to and supportively on an edge of at least two adjacent rectilinear support panel plates on the platform assembly.

4

The invention also comprises an adjustable platform for supporting workers and supplies about an elevated work site, said platform movably supportable on an articulatable support arm. The platform comprises an elongated rectilinear bridging panel arrangement and an elongated floor and railing assembly at each end thereof, wherein each elongated floor and railing assembly are independently movable on support members forwardly and rearwardly with respect to the bridging panel arrangement to change the platform from an "H" shape to a "U" shape or with any combination of one side platform extending fully or partially forward or rearward with the other side platform extending either fully forward or partially forward or rearward, as required. The bridging panel member portion may be elongatedly adjustable to change the width of the platform relative to a work project dimension.

The invention thus also comprises an articulatable, elevated-structure-engaging platform assembly, adjustable between an "H" shape, a "U" shape or combination thereof, the platform assembly being attachable to an overhead support, the platform assembly being arranged to adjustably surround an elevated structure on at least three sides thereof, the platform assembly comprising: a stationary anchor plate support frame bridging member comprising a rear floor; a right side platform and a left side platform slidably and pivotably connected to the anchor plate support frame bridging member rear floor, to provide adjustable "side" portions to the platform assembly, the side portions each being movable in a direction away from and returnable in a direction towards the rear floor, and to be pivotable towards and away from one another, so as to be articulatable around at least one side of an elevated structure for lifting, supporting and even closely squeezing the structure, with personnel and equipment thereat. The right and left side platforms are preferably pivotable and movable independently with respect to the left and right sides platforms respectively. The right side platform and/or the left side platform may be of curved configuration for some or all of its/their length. The overhead support structure preferably may comprise at least one crane or derrick. The at least one crane or derrick preferably has a plurality of cables connected to the platform assembly to maintain stability of that platform assembly. The cables are preferably connected to both ends of the side platforms. At least one side platform is attached to the bridging member by a rotary support means therebetween, to permit the pivoting movement of the side platform with respect to the bridging member. The rotary support unit may comprise a properly controlled worm gear arrangement.

The invention also may comprise a method of supporting a work crew on an elevated structure, comprising one or more of the following steps of: attaching a generally "H" to "U" shaped articulatable platform assembly to an overhead support such as an arm arrangement or overhead crane arrangement, wherein the platform assembly may be arranged to adjustably surround an elevated structure on at least three sides thereof; moving at least one side platform member with respect to a stationary rear bridging member of the platform assembly so as to re-shape the platform assembly, thereby forming least a partial structure-surrounding work-crew platform assembly; moving the right side platform member and the left side platform member independently of one another, wherein the left side platform and the right side platform are individually movable longitudinally, transversely and pivotably with respect to one another, and wherein the platform assembly may be supported from the overhead support by a lift arm or a plurality of cables.

The invention also comprises an adjustable platform assembly for supporting workers and supplies about an elevated work site, the platform assembly being movably

5

supported on an articable support, the platform comprising a stationary rear bridging panel arrangement having an elongated side platform member floor and railing assembly at each end thereof, wherein each elongated side platform member floor and railing assembly is preferably independently movable on support members forwardly, rearwardly, transversely and angularly with respect to the bridging panel arrangement to change the platform assembly back and forth between a generally "H" shape to a generally "U" shape, or any skewed combination thereof, as required.

BRIEF DESCRIPTION OF THE DRAWINGS

The objects and advantages of the present invention will become more apparent, when viewed in conjunction with the following drawings in which:

FIG. 1 is a side elevational view of a lift truck and arm arrangement adapted to move an articulated platform, in a side elevational view shown in several positions of the platform against a building structure;

FIG. 2 is a side elevational view of the rear wall of the platform;

FIG. 2A is a view taken along the lines 2A-2A of FIG. 2;

FIG. 2B is a view taken along the lines 2B-2B of FIG. 2;

FIG. 2C is a view taken along the lines 2C-2C of FIG. 2;

FIG. 3 is an elevational view of the rear wall of the platform, with portions of the floor and sidewalls there attached;

FIG. 3A is a view taken along the lines 3A-3A of FIG. 3;

FIG. 3B is a view taken along the lines 3B-3B of FIG. 3;

FIG. 3C is a view taken along the lines 3C-3C of FIG. 3;

FIG. 4 is a side view of the articable platform and its associated lift arm at different locations about a structure;

FIG. 5 is a plan view of the platform fully extended;

FIG. 6 is a plan view of the platform partially extended;

FIG. 7 is a plan view of the platform with a front floor there attached;

FIG. 8 is a plan view of a platform with a number of floor inserts shown arranged therein;

FIG. 9 is a plan view of an insert utilized in the floor plan of the present articulated platform;

FIG. 10 is an elevational view of the rear wall showing a further embodiment of transverse telescoping adjustability thereof; and

FIG. 11 is a plan view of the side platforms and the rear platform with its further embodiment of transverse and/or pivotable adjustability thereof being supportable from an overhead arrangement of cranes or the like.

DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENT

Referring now to the drawings in detail, and particularly to FIG. 1, there is shown the present invention which comprises an articable platform 10 that is securable to the distal end of an articable arm 12. The articable arm 12 is typically telescopically arranged on the distal end of a movable arm 14 supported on a lift truck 16. The lift truck 16 provides a mobile base from which the inventive articable platform 10 may be moved and adjusted around an elevated chimney 90, or the like, to provide a mason's platform during work on that chimney 90.

The articable arm 12 has a distalmost end 17 with a generally "L" shaped (in cross-section) platform securement member 18 thereon. The articable platform 10 has a preferably rectangularly-shaped lower anchor plate 20 and an elongated rectangular, lower peripheral support frame 22 to which the lower extremity of the "L" shaped platform secure-

6

ment member 18 is attached at several points, by a bolted anchor mechanism 24, as partially represented in FIG. 1. A rear anchor plate 26 is rigidly and fixedly attached, as for example by welding, in a perpendicular manner to the bottom side of the lower anchor plate 20 and the lower support frame 22. The securement member 18 also preferably being secured to the rear anchor plate by another bolted anchor mechanism 24, secured through bolt holes 25, as best represented in FIG. 2.

A right sidewall frame 30, best represented in FIG. 2B and a left sidewall frame 32, best represented in FIG. 2A, are each attached, as for example, by welding, to and define the respective right and left side frame members 34 and 36 of the rear wall frame 38, as represented in FIG. 2. The respective sidewall frames 30 and 32 each have an upper elongated channel 40 and a lower elongated channel 42 parallel to one another, as shown in FIGS. 2A and 2B. The length of upper elongated channel 40 is approximately one half of the length of its adjacent lower elongated channel 42, to provide stronger support to floor panels telescopically supported thereby, near the lower channel 42 on the platform 10.

The sidewall frames 30 and 32, connected to the rear wall frame 38, each slidably support a slidable side wall 44 and 46 respectively, as represented in FIGS. 3A and 3B. An upper right rail 48 of the right slidable sidewall 44, shown in FIG. 3B, telescopically slides through the supportive upper elongated tubular channel 40 of the right sidewall frame 30. A lower rail 50 of the right slidable side wall 44 telescopically slides through the supportive lower elongated tubular channel 42 of the right sidewall frame 30, as shown in FIG. 3B. The right slidable sidewall 44 has a transverse bar 52 at its distalmost end. The right slidable sidewall 44 has a right-side proximal transverse bar 54 at the rear or proximal end of the right slidable sidewall 44, as represented in FIG. 3B. The right-side proximal transverse bar 54 closely butts into a right sidewall frame 38 transverse bar edge 34 when the right slidable sidewall 44 is extended distally its maximum amount.

The left sidewall frame 32 has a left slidable sidewall 46 arranged in a similar manner to the aforementioned right sidewall frame 30. An upper left rail 58 of the left slidable sidewall 46 slides telescopically through the supportive upper elongated tubular channel 40 of the left sidewall frame 32 as represented in FIG. 3A. A lower rail 60 of the left slidable sidewall 46 slides through the supportive lower elongated channel 42 of the left sidewall frame 32. The left slidable sidewall 46 has a transverse bar 62 at its distalmost end and it has a transverse bar 64 at its proximal end. The left-side proximal transverse bar 64 closely butts into a left sidewall frame 38 transverse bar edge 37 when the left slidable sidewall 46 is extended distally its maximum amount, as represented in FIG. 3A and the uppermost representation of the assembly shown FIG. 4.

The right slidable sidewall 44 and the left slidable sidewall 46 each have an elongated fold-down support plate or panel member 70 and 72 respectively, as represented in FIG. 3C. Each sidewall 44 and 46 is connected to their respective support panel or plate 70 and 72 by an elongated distally disposed hinge 74 and 76 connectively arranged along respective lower bar portions 78 and 80 thereof between the plate members 70 and 72. The support plates 70 and 72 are supported on their "hinge-opposite" sides by a lip thereof using ridably sliding support on the lower support frame 22. Each left and right slideable sidewall 46 and 44 has their lower bars 78 and 80, respectively, movable along with their respective left and right slidable sidewalls 44 and 46, the lower bar 78 and 80 of each being hingedly attached to the

7

elongated side plates **70** and **72** which may also be pivoted into supported engagement with a portion of the rear floor **84** on each side of the lower anchor plate **20**, which is part of the lower support frame **22**. The outer edge of each rear floor **84** has a support edge **86** on which the elongated hingedly pivotable side support plate members **70** and **72** may themselves supportively slide/rest.

In operation of the articulable platform **10** on the distal end **17** of the articulable arm **12** on the lift truck **16**, that articulable platform **10** may engageably receive between its elongated side floors **70** and **72**, with a chimney or vertical structure **90** therebetween, as represented by side views in progressive stages of extended engagement of the arm **12**, and concomitant extension of the sidewalls walls **44** and **46**, and the platforms **70** and **72**, as represented in FIG. 4, and in a plan view in FIG. 5, going from an "H" shape to a "U" shape in plan view. Those slidable sidewalls **44** and **46** may be moved forwardly and rearwardly, that is away from and back towards the rear wall frame **38**, as represented by arrows A, B and C shown in the different positions of the sidewalls **44** and **46** in FIG. 4. For instance, if the platform **10** were utilized above a chimney **90** on a slanted roof "R", the slidable sidewalls **44** and **46** would only be independently extended from their respective right sidewall frame **44** and left sidewall frame **46** enough to clear the sides of the chimney without damaging any inclined roof "R" thereadjacent, but the distal ends may rest upon such roof "R" as necessary.

To fully surround a chimney or structure **90**, as represented in a plan view in FIG. 5, those independently slidable sidewalls **44** and **46** and their respective hingedly associated support plates **70** and **72** would be extended away from the rear wall frame **38** so as to provide the elongated side floors their full extendibility thereadjacent, as shown in FIG. 5. FIG. 6 represents a plan view of the platform **10** in a partially extended mode, relative to the chimney **90**, and shows the platform's configuration in the "H" shape.

It is further contemplated that an elongated, rectilinearly shaped front floor plate **94** with a hingedly attached front wall **96** may be adjustably and removably disposed between the respective distalmost ends of the respective properly reinforced supportive elongated side plates **70** and **72**, as represented in FIG. 7. The front floor plate **94** preferably includes a proper corner attachment coupler **98** secured at each end of the front of the floor plate wall **96** to the ends of the respective left and right slidable sidewalls **44** and **46**. The front wall **96** and front floor plate **94** may be hingedly attached to one another by an elongated hinge **100** or weldably attached along their connective adjacent portions thereof.

An arrangement of rectilinear Inserts **102** may be disposed between the chimney **90** and the elongated edges of the elongated side floors **70** and **72**, and the edges **87** of the rear floor **84** and the front floor **94** for in-close support of personnel and material on the platform **10**, as is represented in FIG. 8. Such an insert **102** is represented in FIG. 9, in a plan view thereof. The insert **102** comprises a lipped rectilinear frame **104** having edge shoulder portions which properly rest upon the adjacent edges **106** and **108** of the floors **70** and **72** and the front plate **94**, respectively, as represented in FIG. 8. Also shown in FIG. 8 is a central support plate **110**, above the chimney **90**, which is shown in dashed format. Such a central plate **110** has peripheral shoulder edges for proper restive support on adjacent peripheral plates **102**, **94** and **84**, when needed. Angle iron members, not shown for clarity of views, may be arranged between the side floors **70** and **72** for as needed peripheral support of various panel members, where such support is proper.

8

A further preferred embodiment of the present invention is shown in FIG. 10, wherein the rear wall frame **38** is divided into a unitary mid-portion **120** having upper, intermediate and lower rail members **122**, **123** and **124**, through which right end and left end wall portions rail members **126**, **128** and **130**, and **126'**, **128'** and **130'** of rear wall frame **38** respectively slide supported therethrough, telescopingly or otherwise surely supported in a proper manner thereby. Such an adjustable slidability to the right and left end wall portions **126** and **126'** is also represented in FIG. 11, showing transversely shiftable deck panels **140** and **140'** which are adjustably slidable under the "bridging" portion mid-portion deck panel **142**. This side-independent limited transverse movability is important to provide floor panels with support to workers working on a narrow chimney or small project **90'** requiring close work/material support. Note that such a mid-portion deck panel **142** may have an underside bridging member which is attachable to the generally "L" shaped platform securement member **18**, to facilitate proper movement of such side floors without interference of the lift arm and its member **18**. FIG. 11 shows the platform **10** in a plan view somewhat rebetween the presenting the "U" shape.

FIG. 11 also shows a rotary support unit means **200** arranged between each of the shiftable side deck panels **140** and **140'** and their respective side platform members **30** and **32** for further articulation thereof. The side platforms **30** and **32** may be curved along all of part of their length as shown by the dashed line M on the right side platform **32**. Each supportive rotary unit **200** permits each respective side platform member **30** and/or **32** to pivot or swivel transversely with respect to the longitudinal axis of the connecting bridge **120**, the pivotability being indicated by the arrows **201** and **202**. This permits at least one side platform **30** or **32** of the the platform arrangement **10** to be moved angularly into close non-orthogonal proximity towards and/or moved away and/or around and from any structure or building **90'** or any non-rectilinear structure **91** being worked upon, such as for example, a tree, a pole or an aircraft tail. Such rotary support units **200** may be rotatively driven by properly empowered and also controlled by, for example, a pair of hydraulically, pneumatically or electrically powered, platform-controlled, worm gear arrangements **204**, as represented in FIG. 11, the power supply not shown for clarity of drawings. Such power may for example, also be a manual crank **207** to turn the worm gear arrangement **204** for rotatively moving its respective side platform **30** and/or **32** on its rotary unit **200**, as needed. Each rotary unit **200** may be comprised of a proper rotary support table and platform guiding track on the rotary support table for permitting both rotative and linear motion of the side platforms **30** and/or **32** with respect to the bridge **120**.

It is to be further noted that the platform assembly **10** may be itself supported from one or more overhead cranes or derricks preferably at multiple connections on each crane or derrick **210** and **212**, which platform assembly **10** is supportively connected to those (multiple) crane/derrick connections by a plurality of cables **206**, partially represented in FIG. 11, which multiply supported cables **206** prevent the platform arrangement **10** from twisting or moving angularly with respect to any structure **90'** or **91**, being worked upon.

The invention thus comprises a support frame platform assembly generally of "H" shape in a plan view, independently slidably adjustable both "forwardly and rearwardly" and "widthwise" to a "U" shape or vice versa, for providing an adjustable platform for supporting workers and supplies about an elevated project such as for example, a chimney. The platform assembly has an elongated rectilinear floor panel "bridging" arrangement with an attached adjacent rear wall

member supportively between a pair of adjustable sidewall and side floor panels at each end thereof. The sidewalls and side floor panels are adjustably movable independently forwardly and rearwardly with respect to the rear wall member. The rear wall member and its associated rectilinear floor panel arrangement are sideways adjustable in a telescoping or sliding manner with respect to the central portions of the rear wall and the elongated rectilinear floor panels, to permit the side walls and their associated floor panels to squeeze closer to a narrow chimney against which the platform assembly may be lifted. The platform itself is attached to the distal end of an articuable arm of a power lift truck for lifting of the platform up to and around an elevated chimney.

I claim:

1. An articuable, elevated-structure-engaging platform assembly, which is adjustable between a combination of an "H" shape and a "U" shape, the platform assembly being attachable to an overhead support, the platform assembly being enabled to adjustably surround an elevated structure on at least three sides thereof, the platform assembly comprising:

a stationary anchor plate support frame bridging member comprising a rear floor secured to the overhead support; a right side platform and a left side platform slidably and pivotably supported on the anchor plate support frame bridging member rear floor, to provide adjustable side portions to the platform assembly, the right side platform and the left side platform portions each being independently movable away from and returnable towards the rear floor, and to be independently pivotable towards and away from one another, so as to be articuable around at least three sides of an elevated structure for lifting and supporting personnel and equipment thereat.

2. The articuable platform assembly as recited in claim 1, wherein the overhead support structure comprises at least one crane or derrick.

3. The articuable platform assembly as recited in claim 2, wherein the at least one crane or derrick has a plurality of cables connected to the platform assembly to maintain stability of that platform assembly.

4. The articuable platform assembly as recited in claim 3, wherein the cables are connected to both ends of the side platforms.

5. The articuable platform assembly as recited in claim 1, wherein at least one side platform is attached to the anchor plate support frame bridging member by a rotary support unit therebetween, to permit the pivoting movement of the side platform with respect to the anchor plate support frame bridging member.

6. The articuable platform assembly as recited in claim 5, wherein the rotary support unit comprises a controlled worm gear arrangement.

7. The articuable platform assembly as recited in claim 1, wherein at least one of the side platforms is of a curved configuration.

8. A method of supporting a work crew on an elevated structure, comprising:

attaching a articuable platform assembly to an overhead support, said articuable platform assembly having shape which can be changed from a general "H" shape to a general "U" shape, wherein the platform assembly is arranged to adjustably surround an elevated structure on at least three sides thereof, the articuable platform assembly comprising an anchor plate rear bridging member arranged to support a right side platform and a left side platform, both the right side platform and the left side platform being movable independently with respect to one another and with respect to the anchor plate rear bridging member;

moving at least one side platform member with respect to the stationary rear bridging member of the platform assembly so as to re-shape the platform assembly, thereby forming at least a partial structure surrounding the elevated structure, wherein the left side platform and the right side platform are individually movable longitudinally, transversely and pivotably with respect to one another and wherein the platform assembly is supported from the overhead support by a plurality of cables.

* * * * *